

OPERATING INSTRUCTIONS

MX 991

AUDIO MIXER

[®]**INKEL**

Unpacking and Installation

Although it is neither complicated to install nor difficult to operate your Audio Mixer, a few minutes of your time is required to read this manual for a properly wired installation and becoming familiar with its many features and how to use them.

Please take a great care in unpacking your Mixer and do not discard the carton and other packing materials. They may be needed when moving your set and are required if it ever becomes necessary to return your set for service.

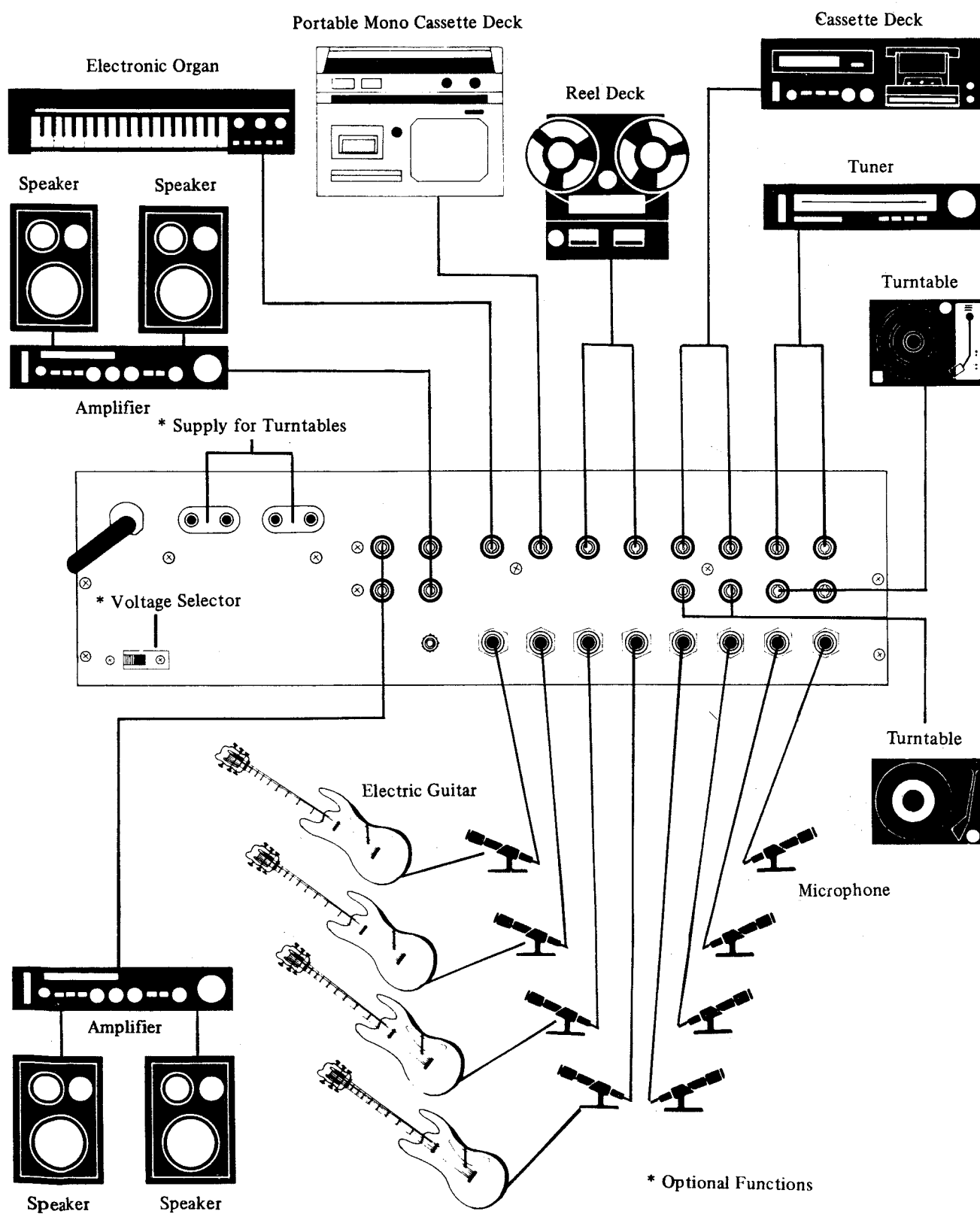
Never place the unit near radiators, in front of heating vents, to direct sun light, in excessively humid or dusty location to avoid early damage and for your years of quality entertainment.

Connect your complementary components as illustrated in the following page.

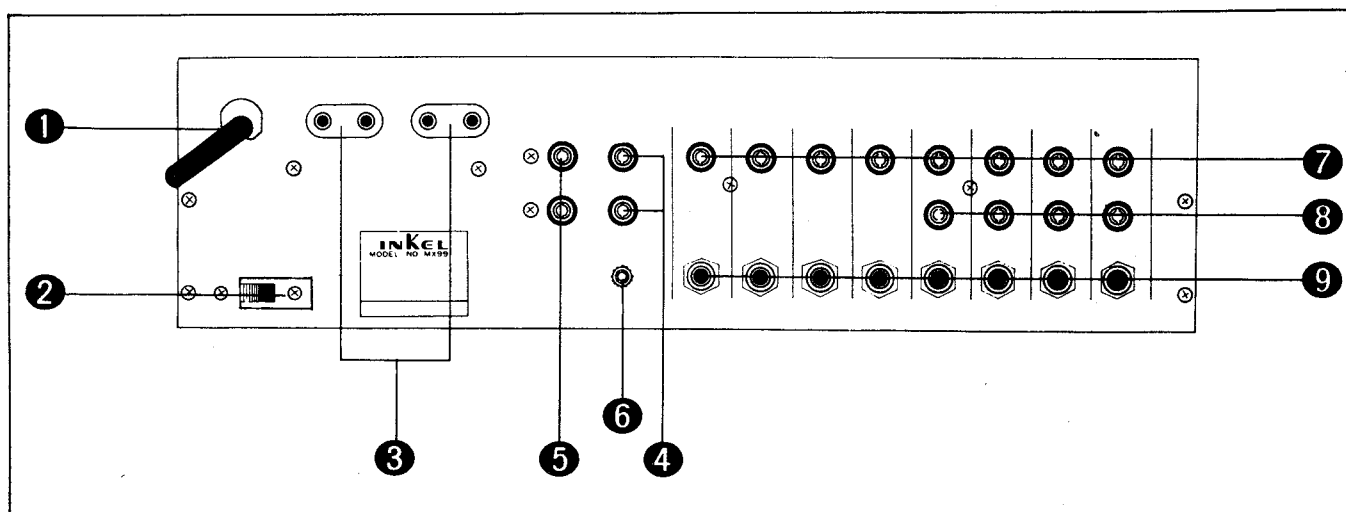
Features of Audio Mixer MX-991

- 8 channel input and 2 channel output amplifiers are incorporated.
Any sound source of microphone, turntable, cassette deck and electric guitar can be applied to this 8 channel inputs and newly developed circuitry is providing low distortion (THD 1KHz 0.03%) and high signal to noise (S/N) ratio.
- Tone Control System
Adjustment of BASS and TREBLE controls for the accoustic characteristics of microphone, speakers and room structure.
- Panpot for Stereo Effect
You can distribute the signal level from microphone and electric guitar as monophonic sources between left and right channels to make a stereo sound effect.
- Function of Echo
To make natural and wide effect of echo sound, this mixer employs BBD (Bucket Brigade Devices) IC. You can adjust the time interval of echo (40m Sec ~ 0.4 Sec), frequency and the level of echo volume from each channel to make sufficient echo effect as you want.
- Input and Output Monitoring
You can monitor the input and output signals by headphone with MONITOR SELECTOR switch very conveniently.

Rear Panel Connections



Rear Panel Connections (continued)



1. AC INPUT CORD

Plug this AC INPUT CORD into AC outlet.

2. AC VOLTAGE SELECTOR (Optional)

In case of multi line voltage zone, voltage selector (110V/220V) is provided. For the single power source area, no line voltage selector is provided and it has been fixed as 110 volts or 220 volts according to the regional requirement.

3. AC OUTLETS FOR TURNTABLES (Optional)

You can turn the turntables connected to this outlets on and off by using the switches near AC main switch.

4. LINE OUT

Signal from these LINE OUT jacks is to be connected to AUX jacks or TAPE IN jacks if necessary on the amplifier.

5. AUX OUT

These output jacks are auxiliary to LINE OUT jacks and can be connected with auxiliary amplifier.

6. GND TERMINAL

This terminal is to be connected to the ground terminal of turntable to reduce hum to minimum.

7. LINE INPUTS

These input jacks are to be connected with output jacks of tuner, cassette deck and electronic organ. If the signals are stereophonic, you can connect left and right channel signals with independent inputs and adjust PANPOT controls to the left and right ends.

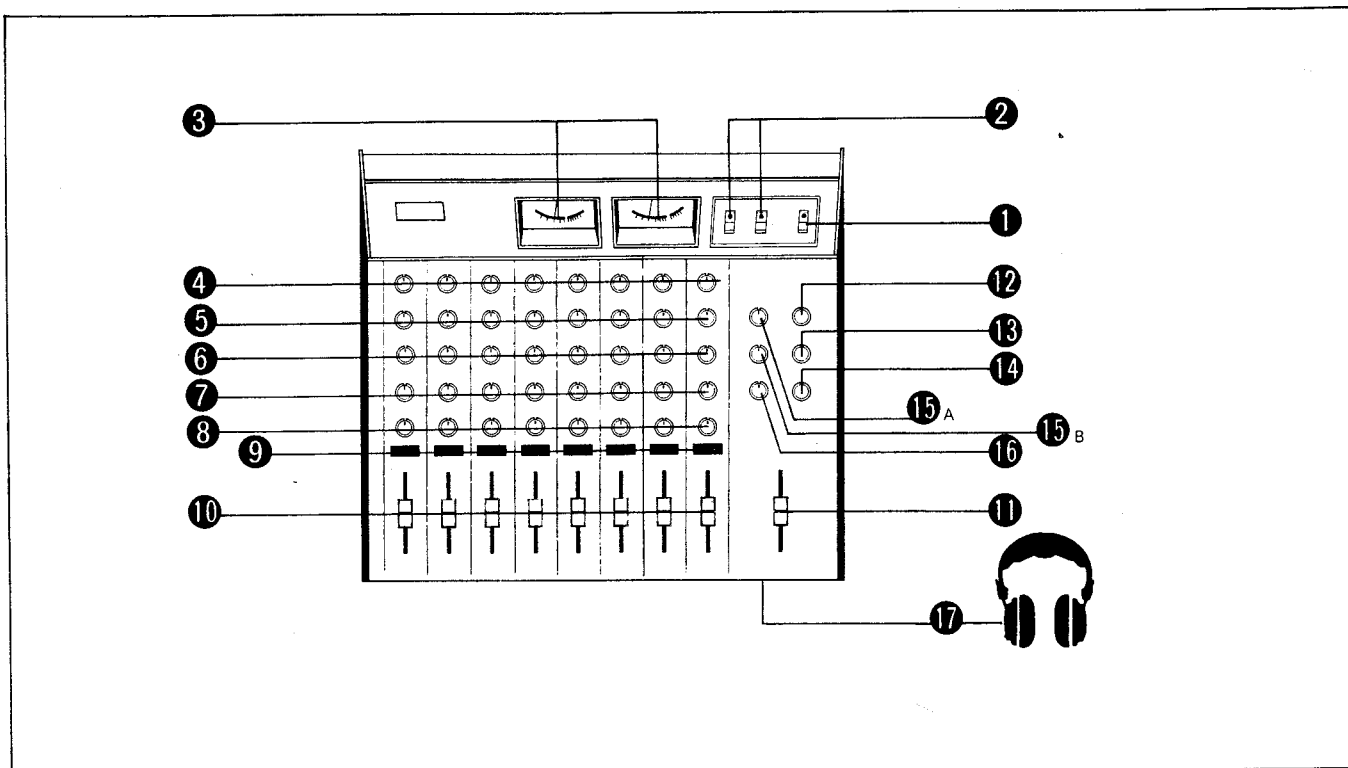
8. PHONO INPUTS

Inputs 1 to 4 are provided to be connected with magnetic cartridge type turntables.

9. MIC INPUTS

These inputs are to be connected with microphones and electric guitars. You can attenuate the sensitivity by positioning INPUT SELECTOR to MIC ATT.

Front Panel Connections



1. POWER SWITCH

To turn the mixer ON or OFF, press the upper part or lower part of this switch button.

2. POWER SWITCHES FOR REAR PANEL AC OUTLETS (Optional)

You can turn ON or OFF the turntables which are connected to this mixer through the rear panel AC outlets.

3. VU METERS

Indicate the output level and the red colored region shows overloaded level.

4. INPUT SELECTOR

This switch is used for selecting the appropriate sensitivity level of LINE/PHONO/MIC input.

LINE; Use this position when you want to mix the line output of tuner, tape deck or electronic organ with other signals. In this position, the level is attenuated to 50dB compared with MIC position.

PHONO; Use this position for magnetic turntables. The level is attenuated to 6dB compared with MIC position.

MIC; Use this position for microphones or electric guitars.

MIC ATT; Use this position for low sensitive indoor microphones or electric guitars. The level is attenuated to 20dB compared with MIC position.

5. BASS CONTROLS

You can modify the low frequency sound as much as $\pm 10\text{dB}$ at 100Hz.

6. TREBLE CONTROLS

You can modify the high frequency sound as much as $\pm 10\text{dB}$ at 10KHz .

7. PANPOT CONTROLS

You can distribute the signal level from microphone and electric guitar as monophonic sources between left and right channels to make a stereo sound effect.

8. ECHO LEVEL CONTROLS

You can adjust echo level of individual channel. When the echo is not in use, please set these controls at the minimum positions.

9. NAME PLATES FOR INDICATION OF EQUIPMENTS

You can fill in these white plates with the names of equipments which are connected to the relevant channels.

10. INPUT LEVEL VOLUME

This is used for adjusting the volume of signal sources which are connected to the relevant channels.

11. MASTER LEVEL VOLUME

This is used for adjusting the volume of finally mixed sound.

12. ECHO DELAY TIME

This is used for adjusting the time interval of echo repeat. "0" position gives approximately 0.04 sec and "10" position gives 0.4 sec .

13. ECHO REPEAT CONTROL

You can adjust frequency of echo repeat. "0" position gives once and "10" position 7~8 times of echo repeat.

14. ECHO MASTER CONTROL

You can adjust the volume level of echo as a whole. When the echo is not in use, please set this control at the minimum position.

15. MONITOR SELECTOR

You can monitor input or output signals by selecting input channels or output channels.

16. MONITOR LEVEL CONTROL

This is used for adjusting volume level of monitoring.

17. HEADPHONE JACK

This jack is used for headphones when you are monitoring.

Specifications

RATED OUTPUT VOLTAGE	1.2V
PHONO AT 1KHz 2mV	
MIC ATT 1KHz 10mV	
LINE 1KHz 300mV	
MIC 1KHz 1mV	
MAX OUTPUT VOLTAGE AT 1KHz WITH NO MORE THAN 0.06% THD	7V
TOTAL HARMONIC DISTORTION AT 20Hz-20KHz 1.2V RMS OUTPUT	0.03%
FREQUENCY RESPONSE AT -3dB	
MIC ATT	15-30K
LINE	15-30K
MIC	15-30K
INPUT OVERLOAD AT 1KHz CLIPPING POINT	
PHONO	100mV
MIC ATT	500mV
LINE	15V
MIC	50mV
S/N RATIO (IHF "A" WTD/UN WTD)	
PHONO	72/65dB
MIC ATT	76/70dB
LINE	76/70dB
MIC	61/58dB
TONE CONTROL BASS AT 100Hz	10dB
TREBLE AT 10KHz	10dB
PHONO EQUALIZATION 30Hz-15KHz	RIAA $\pm$ 1dB
HEAD PHONE OUTPUT AT 1KHz 8 OHM LOAD	1.5mW
ECHO EFFECT	
DELAY TIME	0.04-0.4 SEC
ECHO REPEAT	1-7

NOTE: Specifications and the design subject to change without notice for improvements.

